TECHNICAL NOTES

LAKE STATES FOREST EXPERIMENT STATION
U.S. DEPARTMENT OF AGRICULTURE · · · FOREST SERVICE
UNIVERSITY FARM ST. PAUL 1, MINNESOTA

No. 406

Log Grading Starts in the Woods

A 12-percent increase in the volume of grade No. 1 logs could have been attained in a recent white oak commercial logging operation in southern Michigan if standard log grading rules had been properly applied by the cutters in the woods.

In this operation, similar to one in which a sawmill operator might buy stumpage and contract the logging, 78 trees were felled, 242 logs were bucked, and 30,000 board feet of lumber were sawed. After the trees and logs were cut, but before skidding was started, the logs were graded and scaled. This made it possible to observe the position of each log in the tree and its relationship to adjoining logs. Each tree was examined to see if any logs had been miscut as far as grade was concerned. Miscut logs were considered to be those that could have been a higher grade or those in which the amount of high-grade material could have been increased either by adding to or subtracting from the log lengths as actually cut, depending upon the location of surface defects. Mistakes in log cutting were recorded and notations made as to how the logs could have been cut for highest grade and yield if the cutters had followed available grading rules. The percentage of logs miscut for grade on this operation was probably lower than usual because the cutters, knowing that a log yield and lumber recovery study was being made, were noticeably careful in laying off log lengths.

The data collected, however, revealed that 11 of the 78 trees, or 14 percent, contained logs miscut for grade. This in turn amounted to 42 of the 242 logs, or 17 percent. The lumber from the 42 miscut logs represented 24 percent of the total board-foot volume in the operation. If they had been correctly cut, the value of these logs would have been increased by nearly $55, based on current prices. Spreading this sum over the 11 miscut trees would have amounted to an increase in value of $ 5 per tree, or about $7.50 per thousand board feet for the 42 miscut logs.

One of the interesting points on this operation is that if the 42 miscut logs had been correctly cut for maximum grade only four more power-saw cuts would have been necessary. Also, the volume of grade No. 3 logs would not have been increased.

It appears that an opportunity exists for increasing the yield of high-grade material from many similar logging and milling operations through proper training and conscientious effort in the use of log grading rules in the woods.

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October 1953

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